AMENDMENTS TO THE CLAIMS

This listing of claims replaces all prior versions, and listings, of claims in the application.

1 (original): A mercury vapor discharge fluorescent lamp comprising a light-transmissive glass envelope having an inner surface, means for providing a discharge, a barrier layer coated adjacent said inner surface of said glass envelope, a phosphor layer coated adjacent the inner surface of said barrier layer, and a fill gas of mercury and an inert gas sealed inside said envelope, said barrier layer comprising barrier layer substrate particles and 0.1-10 wt.% yttria, said barrier layer having crystalline yttria particles dispersed throughout said barrier layer.

2 (original): A lamp according to claim 1, wherein said barrier layer is an alumina barrier layer.

3 (original): A lamp according to claim 1, said barrier layer further comprising a yttria film coated over the surfaces of said barrier layer substrate particles and said inner surface of said glass envelope.

4 (original): A lamp according to claim 2, said alumina barrier layer comprising a mixture of alpha- and gamma-alumina particles having a mean particle size of 15-800 nm.

5 (original): A lamp according to claim 2, said alumina barrier layer having a coating weight of 0.05-3 mg/cm^2.

6 (original): A lamp according to claim 1, said barrier layer being selected from the group consisting of silica, hafnia, zirconia, vanadia, and niobia barrier layers, and mixtures thereof.

7 (original): A lamp according to claim 1, said lamp being a T8 lamp initially containing less than 5 mg of mercury.

8 (currently amended): A mercury vapor discharge lamp comprising a light-transmissive glass envelope having an inner surface, means for providing a discharge, a phosphor layer coated adjacent the inner surface of said glass envelope, and a fill gas of mercury and an inert gas sealed inside said envelope, said phosphor layer comprising phosphor particles and 0.001-10 wt.% yttria, said phosphor layer having crystalline yttria particles dispersed throughout said phosphor layer, said phosphor layer further comprising a yttria film coated over the surfaces of said phosphor particles and said inner surface of said glass envelope, each of said phosphor particles having a yttria film substantially uniformly coated over its surface.

9 (original): A lamp according to claim 8, wherein said phosphor layer is a rare earth triphosphor layer.

10 (canceled)

11 (original): A lamp according to claim 8, wherein said phosphor layer has a coating weight of 1-5 mg/cm^2.

12 (original): A lamp according to claim 8, wherein said phosphor layer is a halophosphate layer.

13 (original): A lamp according to claim 8, said lamp being a T8 lamp initially containing less than 5 mg of mercury.

14-25 (canceled)

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26 (new): The lamp of claim 8, said phosphor layer comprising 0.01-5 wt. % yttria.

27 (new): The lamp of claim 8, said phosphor layer comprising 1 wt. % yttria.

28 (new): The lamp of claim 8, wherein said lamp is free from the presence of a barrier layer between said phosphor layer and said glass envelope.

29 (new): The lamp of claim 8, wherein the yttria film coated over the surfaces of said phosphor particles is sufficiently thin to substantially avoid adverse optical effects.

30 (new): The lamp of claim 1, said barrier layer comprising 1-4 wt. % yttria.

31 (new): The lamp of claim 2, said barrier layer comprising 1.5-3 wt. % yttria.

32 (new): The lamp of claim 2, said barrier layer comprising about 2 wt. % yttria.

33 (new): The lamp of claim 3, wherein each of said barrier layer substrate particles has a yttria film substantially uniformly coated over its surface.